REMARKS/ARGUMENTS

As a result of this Amendment, claims 1-2 and 5-24, and 30-40 are under active consideration in the subject patent application.

In the Official Action, the Examiner has:

(1) rejected claims 1-3, 5, and 7-24, under 35 U.S.C. 102(b) as being allegedly anticipated by U.S. Patent No. 5,339,214, issued to Nelson; and

(2) rejected claim 6 under 35 U.S.C. § 103(a) in view of a combination of U.S. Patent No. 5,339,214, issued to Nelson and U.S. Patent No. 6,359,780, issued to McMahan et al.

Applicants have amended claims 1, 5, 21, and 24 so as to distinguish the present invention from each of the references relied upon by the Examiner in the Official Action. New claims 30-40 have been added so as to define further patentable aspects of the invention. Support for these changes to claims 1, 5, 21, and 24 and new claims 30-40 may be found throughout the drawings, specification, and claims as originally filed, and particularly at paragraphs 37, 38, 39, and 40 of the specification, and in Figs. 7 and 8. No new matter has been entered into the application as a result of these changes in the claims. Claims 3-4 and 25-29 have been cancelled without prejudice to Applicants' right to pursue the subject matter of these claim in related applications. The Commissioner is authorized to charge the fees in connection with the additional claims, namely,

$178.00, and any additional fees in connection with this matter, to Deposit Account No. 04-1679.

With regard to Item 1, Applicants respectfully traverse the Examiner's rejection under 35 U.S.C. 102(b) in view of Nelson, and request reconsideration and allowance of claims 1-2, 5-24, and 30-40 for the following reasons. Applicants provide a heat pipe system that includes a heat transfer block, a heat pipe, and a flattened clip member (440) which extends across the heat transfer block with tabs (441, 442) formed therein for being received in respective channels (451, 452) of the heat transfer block (Figs. 7 and 8). Applicants' heat transfer block includes a channel (411) for receiving a flattened portion (421) of the heat pipe. The flattened clip member (440) overlies and secures the flattened portion (421) of the heat pipe in channel (411). Flattened clip member (440) includes a top surface (445) and a bottom surface (446) with tabs (441, 442) extending orthogonally from bottom surface (446). The foregoing structure is quite distinct from the devices taught by either Nelson or McMahan, alone or in combination.

Anticipation under 35 U.S.C. §102 requires that each and every element of the invention defined in the claim be met in a single prior art reference. Those elements must either be inherent or disclosed expressly, and must be arranged as described in the claim. See, Diversitech Corporation v. Century Steps, Inc., 850 F. 2d 675, 7 U.S.P.Q.2d 1315 (Fed. Circuit 1988), Constant v. Advanced Micro-Devices, Inc., 848 F. 2d 1560, 7 U.S.P.Q.2d 1057 (Fed. Circuit 1988), and

Richardson v. Suzuki Motor Company, 868 F. 2d 1226, 9 U.S.P.Q.2d 913 (Fed. Circuit 1989). Nowhere within the four corners of Nelson is there disclosure or even a vague suggestion of a heat transfer block including a central channel and at least two clip channels that are defined in spaced relation to one another with each being adjacent to the central channel. Moreover, Nelson fails to teach or suggest a heat pipe coupled to the heat transfer block by a flattened planar clip having spaced apart tabs that project outwardly from a side surface so as to be received in the at least two clip channels for coupling the heat transfer block to the heat pipe.

Furthermore, nowhere within the four corners of Nelson is there disclosure or even a vague suggestion of a computer comprising a heat transfer block including a central channel and at least two clip channels that are defined in spaced relation to one another, nor are each arranged adjacent to a central channel, or is there a heat pipe coupled to the heat transfer block by a flattened clip having spaced apart tabs that project outwardly from a side surface so as to be received in the at least two clip channels for coupling the heat transfer block to the heat pipe.

These distinctions are quite important, for they reflect significant differences in both construction and function between Applicants' claimed invention and the device taught in Nelson. More particularly, Nelson appears to disclose a computer assembly that has a heat pipe (38) which thermally couples an electronic package (30) to a plurality of fans (32). The assembly includes a

chassis that has a base plate, a front wall and a back wall. Attached to the back wall are fans (32) that are constructed to direct air across the chassis. The electronic package (30) is attached to a mounting plate (42) that is coupled to the base plate of the chassis. The heat pipe (38) has an evaporator portion that is adjacent to the package (30) and a condenser portion that is attached to a heat sink (34) that is located in close proximity to the fans. At col. 3, lines 39-43, Nelson states:

> "FIG. 2 shows a preferred embodiment for coupling the package 30 to the evaporation portion of the heat pipe 38. The assembly 10 includes a mounting plate 42 which has radial channel 44 formed therein. The channel 44 is adapted to hold the heat pipe 38. The heat pipe 38 is secured to the mounting plate 42 by a pair of clips 46 which are captured by a pair of grooves 48 located at the ends of the plate 42."

Thus, in order to hold heat pipe (38) to mounting plate (42) a spring clip (46) is snap fit in grooves (48) that are located in spaced relation to one another at the ends of mounting plate (42) and, therefore, perpendicular to a heat pipe channel 44.

In stark contrast, Applicants define a heat transfer block that includes a central channel that receives the heat pipe and at least two clip channels that are defined in spaced relation to one another through a central portion of the heat transfer block, and with each being adjacent to the central channel. Also, Applicants' heat pipe is coupled to the heat transfer block by a flattened planar clip having spaced apart tabs that project outwardly from a bottom surface so as

to be received in the at least two clip channels for coupling the heat transfer block to the heat pipe. Applicants' heat pipe system takes advantage of the greater surface area provided by flattened clip (440) to increase heat transfer from Applicants' heat transfer block. Nelson's wire spring clip (46) could not be said to provide this function, and is certainly not a structural equivalent to Applicants' flattened clip.

Therefore, Applicants respectfully submit that independent claims 1, 24, and dependent claims 2 and 5-24 are patentable over the Nelson reference, whether taken alone or in any valid combination with the other references of record in the case. Accordingly, Applicants request reconsideration and withdrawal of the rejection of claims 1-2, 5-24, under 35 U.S.C. §102(b). New claims 30-40 are patentable over Nelson alone, or in any valid combination with the other references of record in the application, for all of the same reasons.

With regard to Item 2, the Examiner admits that Nelson fails to teach or suggest a heat pipe that includes a main portion and a pinchoff portion, where the pinchoff portion is disposed in a heat pipe channel of a heat transfer block. This is not surprising since Nelson requires his heat pipe to extend across his heat transfer block so that both of his wire spring clips (46) may engage the heat pipe.

The Examiner has relied upon disclosure in McMahan to supply the missing teachings to Nelson. However, the Examiner has mischaracterized the teachings in McMahan inasmuch as McMahan clearly teaches, at Fig. 4, that the

pinchoff portion of his heat pipe extends beyond the end of his block 20 and heat extraction member (24'). There is simply no suggestion of a heat pipe that includes a main portion and a pinchoff portion, where the pinchoff portion is disposed in a heat pipe channel of a heat transfer block. McMahan's pinchoff portion is not disposed in a heat pipe channel of a heat transfer block, but rather extends beyond the heat transfer block and its heat pipe channel (Fig. 4).

The test for obviousness is what the combined teachings of the references would have suggested to those of ordinary skill in the art. Nelson teaches holding heat pipe (38) to mounting plate (42) with a wire spring clip (46) that is snap fit in channels (48) that are located at the ends of mounting plate (42) and perpendicular to a heat pipe channel (44). McMahan teaches that a pinchoff portion of his heat pipe extends beyond the end of his block (20) and heat extraction member (24'). When the teachings of Nelson are combined with the McMahan references, and taken as a whole, the combination fails to teach or suggest a heat transfer block that includes a central channel that receives the heat pipe and at least two clip channels that are defined in spaced relation to one another with each being adjacent to the central channel; or a heat pipe that is coupled to the heat transfer block by a flattened clip having spaced apart tabs that project outwardly from a side surface so as to be received in the at least two clip channels for coupling the heat transfer block to the heat pipe, with the heat pipes pinchoff located in the central channel. Therefore, the proposed combination of Nelson with McMahan utterly fails to render claim 6 obvious. New

claims 30-40 are likewise patentable over McMahan alone, or in any valid combination with Nelson for all of the same reasons.

Applicants respectfully request that a timely Notice of Allowance be issued in this case.

If a telephone conference would be of assistance in advancing prosecution of the above-identified application, Applicants' undersigned Attorney invites the Examiner to telephone him at **717-237-5516**.

Respectfully Submitted,

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